

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A sulphur pellet comprising an H₂S-suppressant in an amount in the range of from 0.02% to 10% (w/w), based on the total weight of the sulphur pellet, and elemental sulphur in the range of from 75 to 100 wt%, based on the total weight of the sulphur pellet.
2. (Previously Presented) The sulphur pellet according to claim 1, comprising elemental sulphur in the range of from 90 to 100 wt%, based on the total weight of the sulphur pellet.
3. (Previously Presented) The sulphur pellet according to claim 1, wherein the H₂S-suppressant is one or more compounds selected from the class of free radical inhibitors and redox catalysts.
4. (Previously Presented) The sulphur pellet according to claim 1, wherein the H₂S-suppressant is selected from the group consisting of iodine, amine compounds, copper salts, copper oxides, iron salts, iron oxides, cobalt salts and cobalt oxides.
5. (Previously Presented) The sulphur pellet according to claim 4, wherein the iron salts is an iron chloride compound selected from the group consisting of ferric chloride, hydrated ferric chloride, ferrous chloride and hydrated ferrous chloride.

Claim 6 (Canceled).

7. (Previously Presented) A process for the manufacture of sulphur pellets wherein the process comprises the steps of:
 - (a) mixing elemental sulphur and an H₂S-suppressant in a mixing unit to obtain a mixture; and

(b) shaping the mixture in a pelletising unit to obtain an H₂S-suppressant-comprising sulphur pellets.

8. (Previously Presented) The process as claimed in claim 7, wherein the elemental sulphur is introduced in mixing step (a) as molten sulphur with the temperature of the mixture being kept above 113 °C.

9. (Previously Presented) The process as claimed in claim 8, wherein the H₂S-suppressant is selected from the class of free radical inhibitors and redox catalysts.

10. (Previously Presented) A process to manufacture a sulphur-comprising asphalt paving mixture, the process comprising the steps of:

- (i) preheating bitumen at a temperature of between 120 and 180 °C to provide a hot bitumen;
- (ii) preheating aggregate at a temperature of between 120 and 180 °C to provide a hot aggregate;
- (iii) mixing the hot bitumen with the hot aggregate in a mixing unit; and
- (iv) adding a sulphur pellet to said bitumen of step (i) or to said aggregate of step (ii) or to said mixing unit of step (iii), wherein said sulphur pellet consists essentially of: elemental sulphur, an H₂S-suppressant, and, optionally, a filler.

11. (Previously Presented) A process as recited in claim 10, wherein said H₂S-suppressant is present in said sulphur pellet in an amount in the range of from 0.02% to 10% (w/w), based on the total weight of said sulphur pellet.

12. (Previously Presented) A process as recited in claim 11, wherein said H₂S-suppressant is selected from the group consisting of iodine, amine compounds, copper salts, copper oxides, iron salts, iron oxides, cobalt salts and cobalt oxides.

13. (Previously Presented) A process as recited in claim 12, wherein said iron salts include ferric chloride, hydrated ferric chloride, ferrous chloride and hydrated ferrous chloride.

14. (Previously Presented) A process as recited in claim 13, wherein said filler is present in said sulphur pellet in an amount in the range of from 0.1% to 30% (w/w), based on the total weight of the sulphur pellet, and wherein said filler is a calcium-based mineral filler.

15. (Currently Amended) A process to manufacture a sulphur-comprising asphalt paving mixture, the process comprising the steps of:

- (i) preheating bitumen at a temperature of between 120 and 180 °C to provide a hot bitumen;
- (ii) preheating aggregate at a temperature of between 120 and 180 °C to provide a hot aggregate;
- (iii) mixing the hot bitumen with the hot aggregate in a mixing unit; and
- (iv) adding a sulphur pellet to said bitumen of step (i) or to said aggregate of step (ii) or to said mixing unit of step (iii), wherein said sulphur pellet has a substantial absence of bitumen or aggregate, or both, and includes elemental sulphur and an H₂S-suppressant ~~in an amount in the range of from 0.02% to 10% (w/w) based on the total weight of said sulphur pellet.~~

16. (Previously Presented) A process as recited in claim 15, wherein said H₂S-suppressant is present in said sulphur pellet in an amount in the range of from 0.02% to 10% (w/w), based on the total weight of said sulphur pellet.

17. (Previously Presented) A process as recited in claim 16, wherein said H₂S-suppressant is selected from the group consisting of iodine, amine compounds, copper salts, copper oxides, iron salts, iron oxides, cobalt salts and cobalt oxides.

18. (Previously Presented) A process as recited in claim 17, wherein said iron salts include ferric chloride, hydrated ferric chloride, ferrous chloride and hydrated ferrous chloride.

19. (Previously Presented) A process as recited in claim 18, wherein said sulphur pellet includes a calcium-based mineral filler that is present in said sulphur pellet in an amount in the range of from 0.1% to 30% (w/w), based on the total weight of the sulphur pellet.
20. (Previously Presented) A sulphur pellet composition, consisting essentially of: elemental sulphur, an H₂S-suppressant, and, optionally, a filler.
21. (Previously Presented) A sulphur pellet composition as recited in claim 20, wherein said H₂S-suppressant is present in said sulphur pellet in an amount in the range of from 0.02% to 10% (w/w), based on the total weight of said sulphur pellet.
22. (Previously Presented) A sulphur pellet composition as recited in claim 21, wherein said H₂S-suppressant is selected from the group consisting of iodine, amine compounds, copper salts, copper oxides, iron salts, iron oxides, cobalt salts and cobalt oxides.
23. (Previously Presented) A sulphur pellet composition as recited in claim 22, wherein said iron salts include ferric chloride, hydrated ferric chloride, ferrous chloride and hydrated ferrous chloride.
24. (Previously Presented) A sulphur pellet composition as recited in claim 23, wherein said filler is present in said sulphur pellet in an amount in the range of from 0.1% to 30% (w/w), based on the total weight of the sulphur pellet, and wherein said filler is a calcium-based mineral filler.
25. (Currently Amended) A composition, comprising: a sulphur pellet having a substantial absence of bitumen or aggregate, or both, and including elemental sulphur and an H₂S-

suppressant in an amount in the range of from 0.02% to 10% (w/w) based on the total weight of said sulphur pellet.

26. (Previously Presented) A composition as recited in claim 25, wherein said H₂S-suppressant is present in said sulphur pellet in an amount in the range of from 0.02% to 10% (w/w), based on the total weight of said sulphur pellet.

27. (Previously Presented) A composition as recited in claim 26, wherein said H₂S-suppressant is selected from the group consisting of iodine, amine compounds, copper salts, copper oxides, iron salts, iron oxides, cobalt salts and cobalt oxides.

28. (Previously Presented) A composition as recited in claim 27, wherein said iron salts include ferric chloride, hydrated ferric chloride, ferrous chloride and hydrated ferrous chloride.

29. (Previously Presented) A composition as recited in claim 28, wherein said sulphur pellet includes a calcium-based mineral filler that is present in said sulphur pellet in an amount in the range of from 0.1% to 30% (w/w), based on the total weight of the sulphur pellet.

30. (Previously Presented) A process for making a sulphur pellet, wherein said process comprises:

mixing elemental sulphur and an H₂S-suppressant by the introduction thereof, without the substantial addition of bitumen or aggregate, or both, into a mixing unit for preparing a mixture of said elemental sulphur and said H₂S-suppressant; and

forming said mixture into said sulphur pellet.

31. (Currently Amended) A process as recited in claim 30, wherein said sulphur pellet has the composition as recited in any one of claims 1-5 ~~and or~~ 20-29.

32. (Previously Presented) A process as recited in claim 31, wherein said elemental sulphur of said mixing step is added to said mixing unit in the form a slurry comprising sulphur particles dispersed in water.

33. (Previously Presented) A process as recited in claim 32, wherein said sulphur particles have a size in the range of from about 0.5 microns to about 150 microns.

34. (Previously Presented) A process as recited in claim 33, wherein said slurry further comprises an emulsifier.

35. (Previously Presented) A process as recited in claim 30, wherein said elemental sulphur of said mixing step is added to said mixing unit in the form of molten sulphur and the mixing of said mixing step is conducted at a temperature in the range of from 115 °C to 121 °C.

36. (Previously Presented) The sulphur pellet as recited in claim 1, wherein the H₂S - suppressant is distributed substantially homogeneously throughout the sulphur pellet.

37. (Currently Amended) The sulphur pellet of claim 26 ~~has~~ 36 having a substantial absence of bitumen or aggregate, or both.

38. (New) A sulphur pellet comprising an H₂S-suppressant in an amount in the range of from 0.02% to 10% (w/w), based on the total weight of the sulphur pellet, and elemental sulphur in an amount of at least about 75 wt%, based on the total weight of the sulphur pellet.

39. (New) The sulphur pellet according to claim 38, comprising elemental sulphur in an amount of at least about 90 wt%, based on the total weight of the sulphur pellet.

40. (New) The sulphur pellet according to claim 38, wherein the H₂S-suppressant is one or more compounds selected from the class of free radical inhibitors and redox catalysts.

41. (New) The sulphur pellet according to claim 38, wherein the H₂S-suppressant is selected from the group consisting of iodine, amine compounds, copper salts, copper oxides, iron salts, iron oxides, cobalt salts and cobalt oxides.

42. (New) The sulphur pellet according to claim 41, wherein the iron salts is an iron chloride compound selected from the group consisting of ferric chloride, hydrated ferric chloride, ferrous chloride and hydrated ferrous chloride.